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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/638,079 08/14/00 DISTEFANO

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000530 MM91/0618  
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EXAMINER

DANG, P

ART UNIT

PAPER NUMBER

2818

DATE MAILED:

06/18/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/638,079

Applicant(s)

DISTEFANO ET AL.

Examiner

Phuc T. Dang

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claims 1-41 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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Art Unit: 2818

*Election/Restriction*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Group I, Claims 1-4 and 22-24, drawn to a manufacturing and method of providing a substantially void-free underfill for a flip chip assembly, classified in class 438, subclass 612.
  - II. Group II, Claims 5-10 and 25-30, drawn to a manufacturing and method of injecting an encapsulant between a face surface of a semiconductor chip and a juxtaposed substrate, classified in class 438, subclass 125.
  - III. Group III, claims 11-14 and 31-34, draw to manufacturing and method of treating an interposer layer for a semiconductor package assembly to provide a substantially void-free interposer layer, class 324, subclass 754.
  - IV. Group IV, claims 15-21 and 35-41, draw to a manufacturing and method of creating a void-free interposer layer for a microelectronic component, classified in class 439, subclass 85.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions I, II, III, and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operations, different functions, or different effects (MPEP 806.04, MPEP 808.01). In the instant case, the different inventions have different modes of operation and different functions. The five inventions are patentably distinguished by their mutually details as set out above. The limitations recited in the invention I has not been recited in the other inventions II, III, and IV, and vice-versa. The limitations recited in on one Group, but not in the other Groups evident that the various combinations are patentable distinct from each other because a reference which anticipates one of the invention would not, in and of itself, makes the other inventions obvious.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by either different classification, restriction for examination purposes as indicated is proper.
4. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement to be traversed (37 CFR 1.143).

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(h).

6. Any inquiry concerning this communication or earlier communication from the examiner should be direct to Phuc T. Dang whose telephone number (703) 305-1080. The examiner can normally be reached on Monday through Friday from 8.00am to 5.00pm.

Phuc T. Dang PP  
Examiner  
Art Unit 2818

June 11, 2001

  
David Nelms  
Supervisory Patent Examiner  
Technology Center 2800